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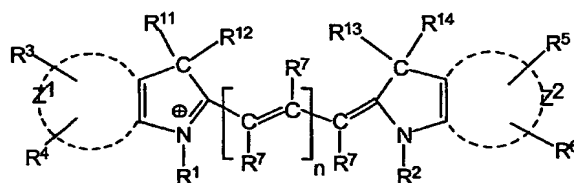
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(54) Title: **CYANINE DYE LABELLING REAGENTS**



(I)

(57) Abstract: Disclosed are cyanine dyes that are useful for labeling and detecting biological and other materials. The dyes are of formula (I) in which groups R³ and R⁴ are attached to the Z¹ ring structure and groups R⁵ and R⁶ are attached to the Z² ring structure, and n = 1, 2 or 3; Z¹ and Z² independently represent the carbon atoms necessary to complete a one ring, or two-fused ring aromatic system; at least one of groups R¹, R², R³, R⁴, R⁵, R⁶ and R⁷ is the group -E-F where E is a single bond or a spacer group and F is a target bonding group; one or more of groups R¹¹, R¹², R¹³ and R¹⁴ are independently selected from the group -(CH₂)_k-W, where W is sulphonic acid or phosphonic acid and k is an integer from 1 to 10. The dyes may be used in fluorescence labeling applications, where the presence of one and preferably multiple water solubilising groups attached to the 3-position of the indolinium ring reduces dye-dye interactions, and hence dye-dye quenching, particularly where multiple dye molecules are attached to components such as nucleic acids, oligonucleotides, proteins and antibodies.